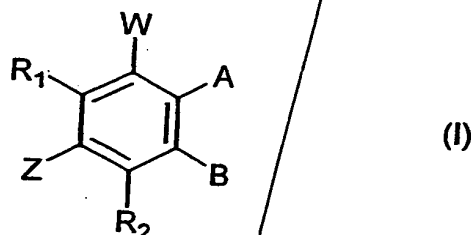


The claims defining the invention are as follows:

1. An isoflavone compound or analogue thereof of the general formula I:

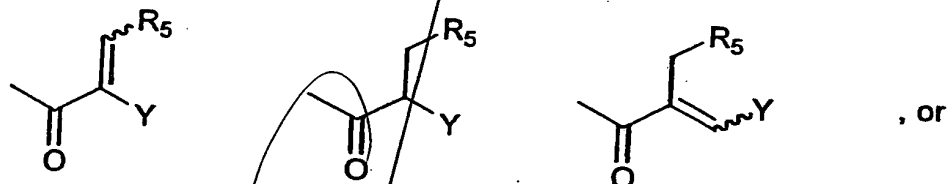


- 5 in which

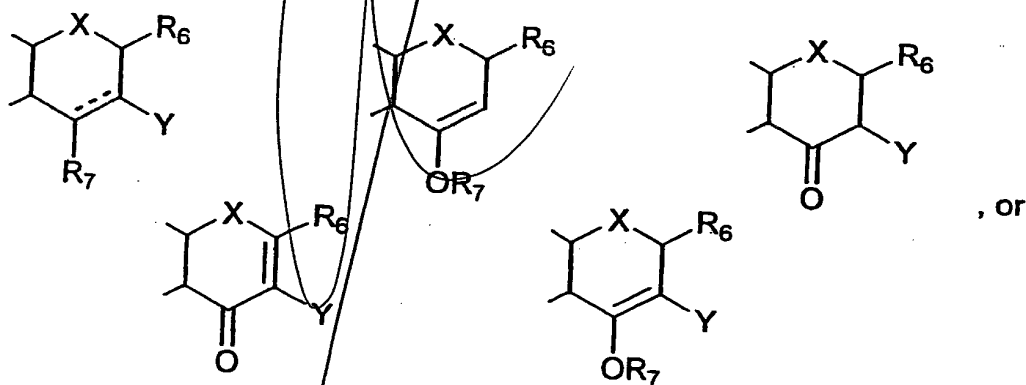
R_1 and R_2 are independently hydrogen, hydroxy, OR_9 , $OC(O)R_{10}$, $OS(O)R_{10}$, CHO , $C(O)R_{10}$, $COOH$, CO_2R_{10} , $CONR_3R_4$, alkyl, haloalkyl, aryl, arylalkyl, thio, alkylthio, amino, alkylamino, dialkylamino, nitro or halo,

Z is hydrogen, and

- 10 W is R_1 , A is hydrogen, hydroxy, NR_3R_4 or thio, and B is selected from

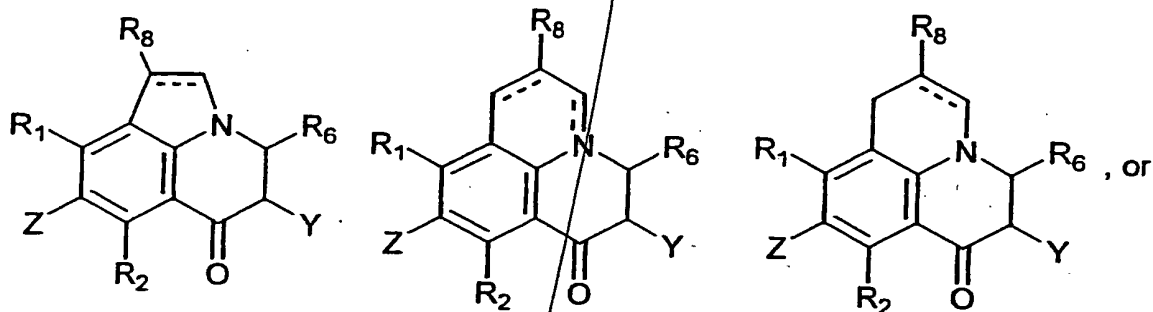


- W is R_1 , and A and B taken together with the carbon atoms to which they are attached form a six-membered ring selected from

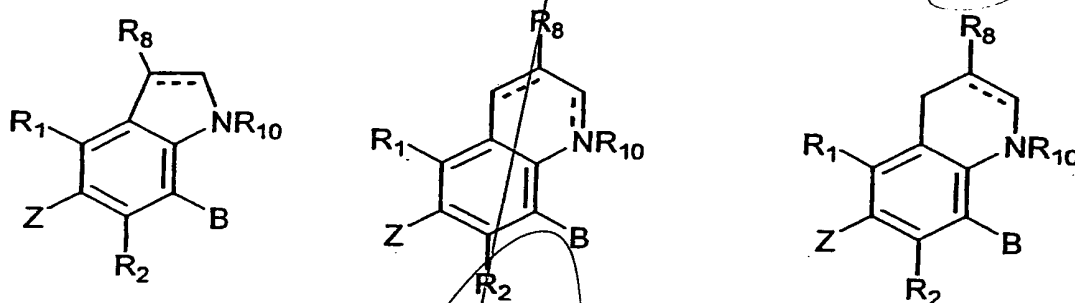


- 15 W , A and B taken together with the groups to which they are associated comprise

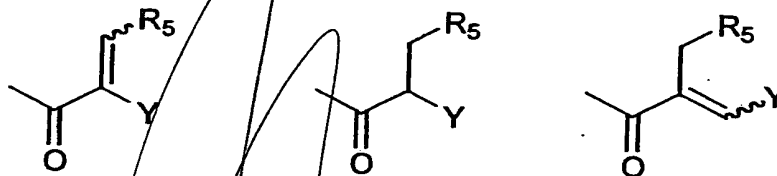
- 29 -



W and A taken together with the groups to which they are associated comprise



and B is



5

wherein

- R₃ is hydrogen, alkyl, aryl, arylalkyl, an amino acid, C(O)R₁₁ where R₁₁ is hydrogen alkyl, aryl, arylalkyl or an amino acid, or CO₂R₁₂ where R₁₂ is hydrogen, alkyl, haloalkyl, aryl or arylalkyl,
- 10 R₄ is hydrogen, alkyl or aryl, or R₃ and R₄ taken together with the nitrogen to which they are attached comprise pyrrolidinyl or piperidinyl,
- R₅ is hydrogen, C(O)R₁₁ where R₁₁ is as previously defined, or CO₂R₁₂ where R₁₂ is as previously defined,
- 15 R₆ is hydrogen, hydroxy, alkyl, aryl, amino, thio, NR₃R₄, COR₁₁ where R₁₁ is as previously defined, CO₂R₁₂ where R₁₂ is as previously defined or CONR₃R₄,
- R₇ is hydrogen, C(O)R₁₁ where R₁₁ is as previously defined, alkyl, haloalkyl, aryl, arylalkyl or Si(R₁₃)₃ where each R₁₃ is independently hydrogen, alkyl or aryl,

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R_8 is hydrogen, hydroxy, alkoxy or alkyl,

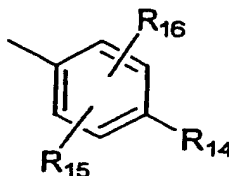
R_9 is alkyl, haloalkyl, aryl, arylalkyl, $C(O)R_{11}$ where R_{11} is as previously defined, or $Si(R_{13})_3$ where R_{13} is as previously defined,

R_{10} is hydrogen, alkyl, haloalkyl, amino, aryl, arylalkyl, an amino acid, alkylamino or dialkylamino,

the drawing "—" represents either a single bond or a double bond,

X is O, NR_4 or S, and

Y is



wherein

R_{14} , R_{15} and R_{16} are independently hydrogen, hydroxy, OR_9 , $OC(O)R_{10}$, $OS(O)R_{10}$, CHO , $C(O)R_{10}$, $COOH$, CO_2R_{10} , $CONR_3R_4$, alkyl, haloalkyl, aryl, arylalkyl, thio, alkylthio, amino, alkylamino, dialkylamino, nitro or halo,

with the proviso that

when

R_1 is hydroxy, or $OC(O)R_A$ where R_A is alkyl or an amino acid, and

R_2 is hydrogen, hydroxy, OR_B where R_B is an amino acid or $C(O)R_A$ where R_A is as previously defined, and

W is hydrogen, then

Y is not 4-hydroxyphenyl or 4-alkylphenyl;

when

R_1 is hydroxy, or $OC(O)R_A$ where R_A is alkyl or an amino acid, and

R_2 is hydrogen, hydroxy, OR_B where R_B is an amino acid or $C(O)R_A$ where R_A is as

previously defined, and

Y is 4-hydroxyphenyl or 4-alkylphenyl, then

W is not hydrogen;

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when

R_1 is hydroxy, or $OC(O)R_A$ where R_A is alkyl or an amino acid, and

Y is 4-hydroxyphenyl or 4-alkylphenyl, and

W is hydrogen, then

5 R_2 is not hydrogen, hydroxy, OR_B where R_B is an amino acid or $C(O)R_A$ where R_A is as previously defined; and

when

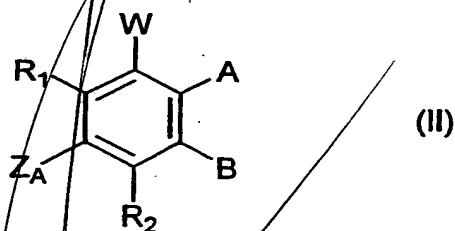
10 R_2 is hydrogen, hydroxy, OR_B where R_B is an amino acid or $C(O)R_A$ where R_A is as previously defined, and

Y is 4-hydroxyphenyl or 4-alkylphenyl, and

W is hydrogen, then

R_1 is not hydroxy, or $OC(O)R_A$ where R_A is alkyl or an amino acid.

15 2. An isoflavone compound or analogue thereof of the general formula II:



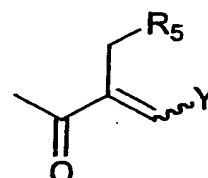
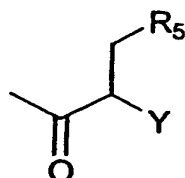
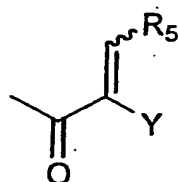
in which

20 R_1 and R_2 are independently hydrogen, hydroxy, OR_9 , $OC(O)R_{10}$, $OS(O)R_{10}$, CHO, $C(O)R_{10}$, COOH, CO_2R_{10} , $CONR_3R_4$, alkyl, haloalkyl, aryl, arylalkyl, thio, alkylthio, amino, alkylamino, dialkylamino, nitro or halo,

Z_A is OR_9 , $OC(O)R_{10}$, $OS(O)R_{10}$, CHO, $C(O)R_{10}$, COOH, CO_2R_{10} , $CONR_3R_4$, alkyl, haloalkyl, aryl, arylalkyl, thio, alkylthio, amino, alkylamino, dialkylamino, nitro or halo, and

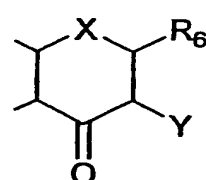
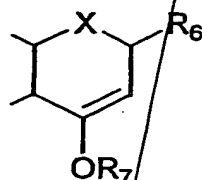
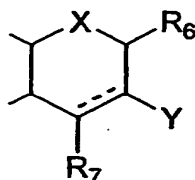
25 W is R_1 , A is hydrogen, hydroxy, NR_3R_4 or thio, and B is selected from

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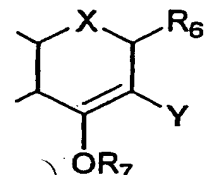
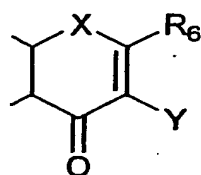


, or

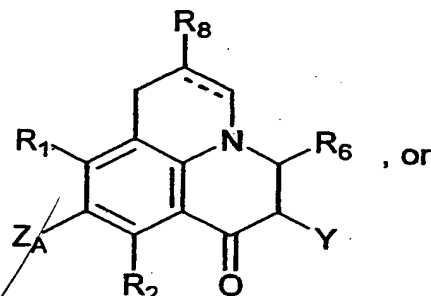
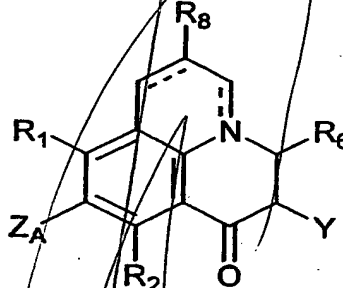
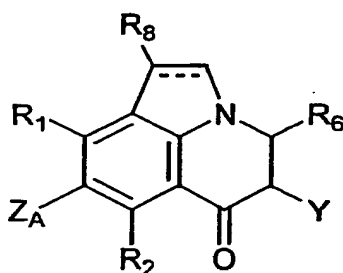
W is R₁, and A and B taken together with the carbon atoms to which they are attached form a six-membered ring selected from



, or

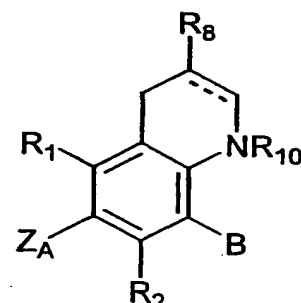
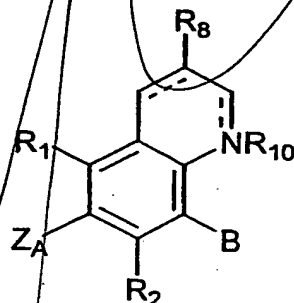
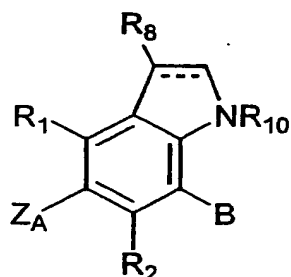


5 W, A and B taken together with the groups to which they are associated comprise



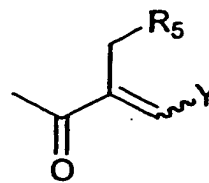
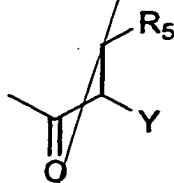
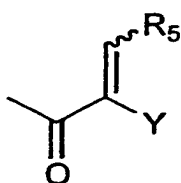
, or

W and A taken together with the groups to which they are associated comprise



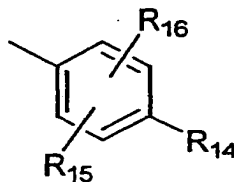
and B is

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wherein

- R_3 is hydrogen, alkyl, aryl, arylalkyl, an amino acid, $C(O)R_{11}$ where R_{11} is hydrogen alkyl, aryl, arylalkyl or an amino acid, or CO_2R_{12} where R_{12} is hydrogen, alkyl, haloalkyl, aryl or arylalkyl,
- R_4 is hydrogen, alkyl or aryl, or R_3 and R_4 taken together with the nitrogen which they are attached are pyrrolidinyl or piperidinyl,
- R_5 is hydrogen, $C(O)R_{11}$ where R_{11} is as previously defined, or CO_2R_{12} where R_{12} is as previously defined,
- R_6 is hydrogen, hydroxy, alkyl, aryl, amino, thio, NR_3R_4 , COR_{11} where R_{11} is as previously defined, CO_2R_{12} where R_{12} is as previously defined or $CONR_3R_4$,
- R_7 is hydrogen, $C(O)R_{11}$ where R_{11} is as previously defined, alkyl, haloalkyl, aryl, arylalkyl or $Si(R_{13})_3$ where each R_{13} is independently hydrogen, alkyl or aryl,
- R_8 is hydrogen, hydroxy, alkoxy or alkyl,
- R_9 is alkyl, haloalkyl, aryl, arylalkyl, $C(O)R_{11}$ where R_{11} is as previously defined, or $Si(R_{13})_3$ where R_{13} is as previously defined,
- R_{10} is hydrogen, alkyl, haloalkyl, amino, aryl, arylalkyl, an amino acid, alkylamino or dialkylamino,
- the drawing "—" represents either a single bond or a double bond,
- X is O, NR_4 or S, and
- Y is

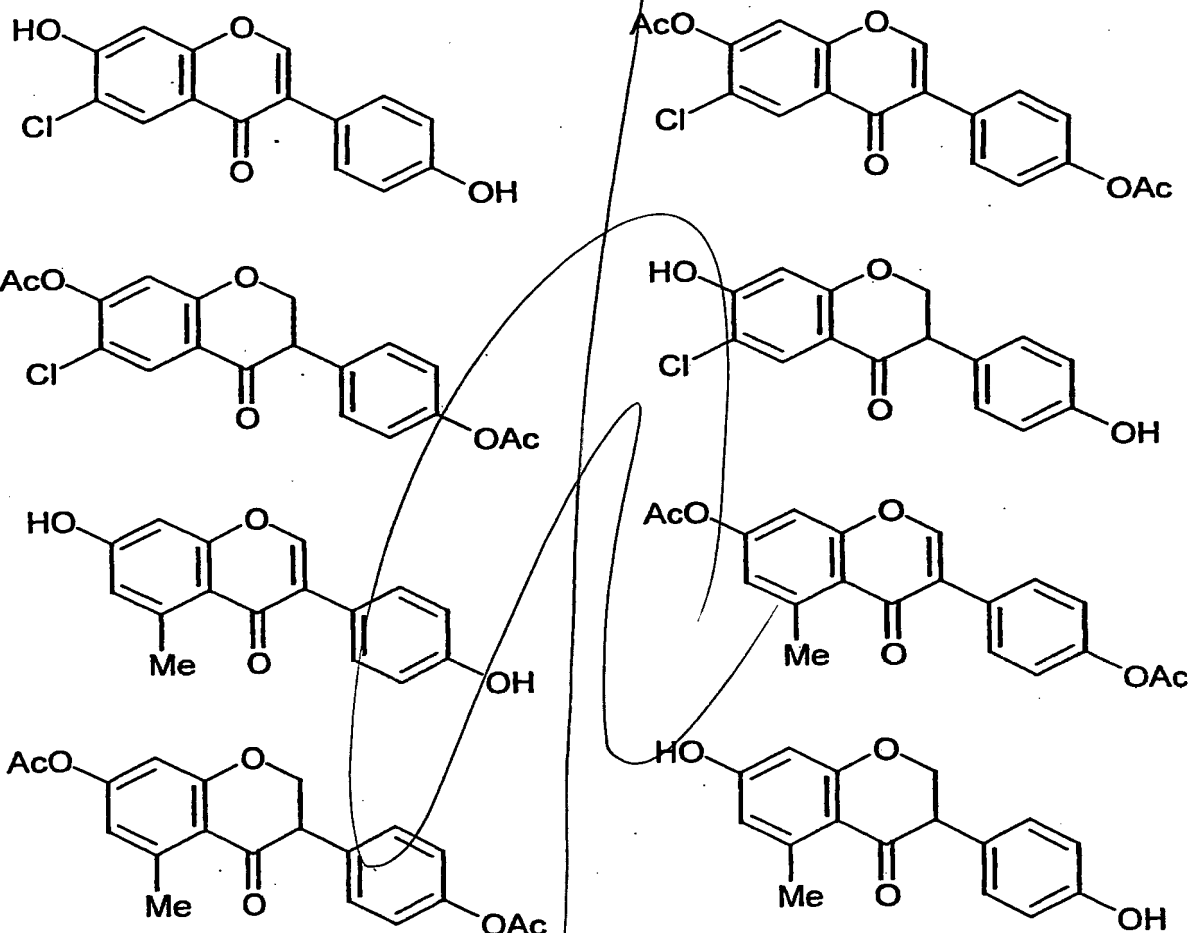


wherein

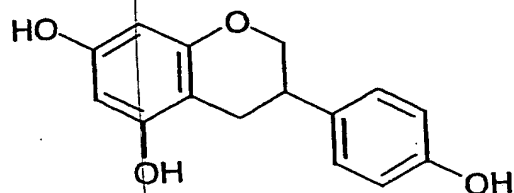
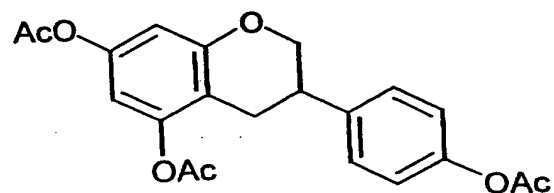
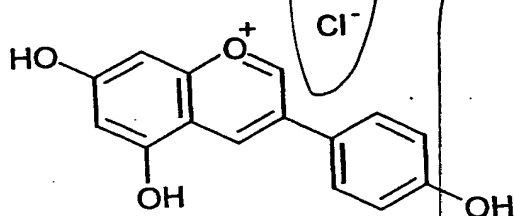
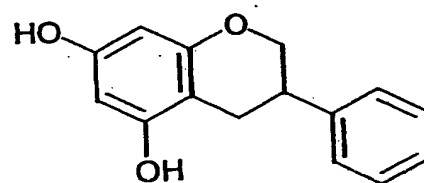
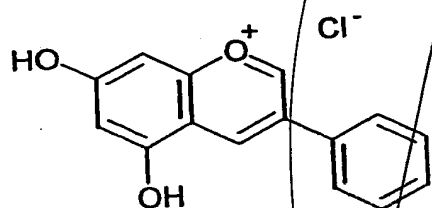
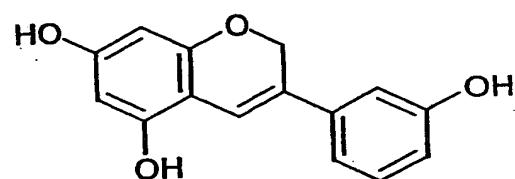
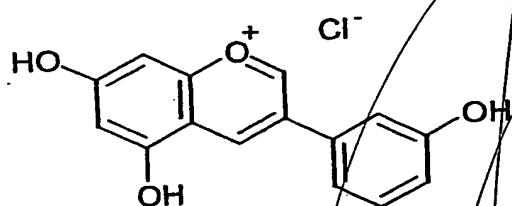
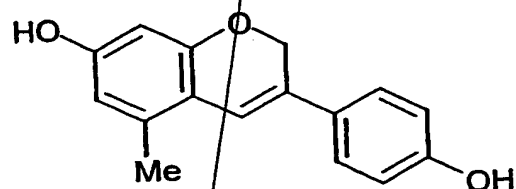
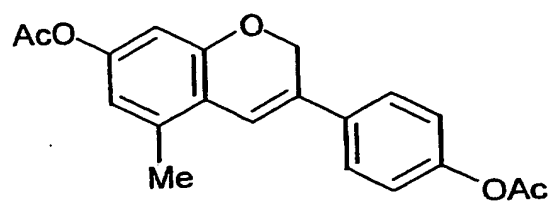
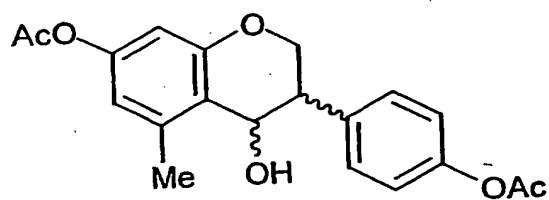
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R_{14} , R_{15} and R_{16} are independently hydrogen, hydroxy, OR_9 , $OC(O)R_{10}$, $OS(O)R_{10}$, CHO , $C(O)R_{10}$, $COOH$, CO_2R_{10} , $CONR_3R_4$, alkyl, haloalkyl, aryl, arylalkyl, thio, alkylthio, amino, alkylamino, dialkylamino, nitro or halo.

- 5 3. A compound of formulae I as defined in claim 1 or of formula II as defined in claim 2 selected from the group consisting of:



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4. A method for the treatment, prophylaxis, amelioration, defence against, and/or prevention of menopausal syndrome including hot flushes, anxiety, depression, mood swings, night sweats, headaches, and urinary incontinence; osteoporosis; premenstrual syndrome, including fluid retention, cyclical mastalgia, and dysmenorrhoea; Reynaud's Syndrome; Reynaud's Phenomenon; Buerger's Disease; coronary artery spasm; migraine headaches; hypertension; benign prostatic hypertrophy; all forms of cancer including breast cancer; uterine cancer; ovarian cancer; testicular cancer; large bowel cancer; endometrial cancer; prostatic cancer; uterine cancer; arteriosclerosis; Alzheimer's disease; inflammatory diseases including inflammatory bowel disease, ulcerative colitis, Crohn's disease; rheumatic diseases including rheumatoid arthritis; acne; baldness including male pattern baldness (alopecia hereditaria); psoriasis; diseases associated with oxidant stress including cancer; myocardial infarction; stroke; arthritis; sunlight induced skin damage or cataracts (the "therapeutic indications") which comprises administering to a subject a therapeutically effective amount of one or more compounds selected from formulae I and II.
5. Use of one or more compounds selected from formulae I and II for the manufacture of a medicament for the treatment, amelioration, defence against, prophylaxis and/or prevention of one or more therapeutic indications according to claim 4.
6. Use of one or more compounds selected from formulae I and II in the treatment, amelioration, defence against, prophylaxis and/or prevention of one or more therapeutic indications according to claim 4.
7. An agent for the treatment, prophylaxis, amelioration, defence against and/or treatment of the therapeutic indications according to claim 4 which comprises one or more compounds selected from formulae I and II either alone or in association with one or more carriers or excipients.

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8. A therapeutic composition which comprises one or more compounds selected from formulae I and II in association with one or more pharmaceutical carriers and/or excipients.

5 9. A drink or food-stuff, which contains one or more compounds selected from formulae I and II.

10 10. A microbial culture or a food-stuff containing one or more microbial strains which microorganisms produce one or more compounds selected from formulae I and II.

11. One or more microorganisms which produce one or more compounds selected from formulae I and II.

15

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